



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,375	12/03/2003	Gerald B. Eaton	85316 D	7146
31248	7590	08/10/2004	EXAMINER	
ANTHONY F. MATHENY ANDREWS & KURTH L.L.P. 600 TRAVIS SUITE 4200 HOUSTON, TX 77002			TSOY, ELENA	
			ART UNIT	PAPER NUMBER
			1762	

DATE MAILED: 08/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/726,375	EATON ET AL.	
	Examiner	Art Unit	
	Elena Tsoy	1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Preliminary Amendment

1. Preliminary Amendment filed on December 3, 2003 has been entered. Claims 11-31 have been cancelled. Claims 1-10 are pending in the application.

Specification

2. The disclosure is objected to because of the following informalities: a phrase "solid C₁ through C₁₉ alpha olefin monomers" on page 8, line 28, seems to be incorrect since **solid C₁** alpha olefin monomer does not exist. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 1-10** are rejected under 35 U.S.C. 102(b) as being anticipated by Mack (US 4,433,123).

Mack discloses a drag reducing agent formed by a process comprising: contacting C₂-C₃₀ alpha olefin monomers with a catalyst such as Ziegler-Natta catalyst (See column 1, lines 13-14), e.g. titanium trichloride (See column 4, lines 58-59) with a co-catalyst (See column 4, lines 51-53), e.g. diethylaluminum chloride or dibutylaluminum chloride (See column 5, lines 54+), in a reactant mixture (i.e. the reactant mixture includes at least one C₂₀-C₃₀ alpha olefin monomers), polymerizing the alpha olefin monomers at temperature from -25 °C to 80 °C, preferably 10 °C -

Art Unit: 1762

30 °C, wherein during the polymerization less than 20 wt % (at least a portion) of the alpha olefin monomers polymerize in the reactant mixture to provide a polyalphaolefin (See column 1, lines 10-15; column 2, lines 42-67; column 3, lines 1-2). The formed drag reducing agent is used for reducing drag in a conduit by introducing it into the conduit (See column 7, lines 55-66). The polymer can be manufactured in an alpha olefin with no additional solvent; and the entire reaction mixture (i.e. a mixture comprising a polyalphaolefin and unreacted alpha olefin monomers including unreacted C₂₀-C₃₀ alpha olefin monomers) can then be used as a drag reducing agent for pumpable liquids (See column 3, lines 14-22; column 6, lines 44-52).

It is the Examiner's position that C₂₀ - C₃₀ alpha olefin monomer is in fact partitioning agent as claimed because the drag reducing agent of Mack is prepared by a process substantially identical to that of claimed invention; and alpha olefin monomer partitioning agent is described by specification as any C₂ or higher alpha olefin monomers, which are solid at a temperatures at which polymerization occurs, for example C₂₀ - C₃₀ alpha olefin monomers, which are solid at ambient temperatures (See specification, page 8, lines 16-29).

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy whose telephone number is (571) 272-1429. The examiner can normally be reached on Mo-Thur. 9:00-7:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on (571) 272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1762

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in cursive script, appearing to read 'ETsoy'.

Elena Tsoy
Primary Examiner
Art Unit 1762

August 6, 2004